Abstract of the Disclosure

A voice activity detector (100) filters (204) out noise energy and then computes a high-frequency (2400 Hz to 4000 Hz) versus low-frequency (100 Hz to 2400 Hz) signal energy ratio (224), total voiceband (100 Hz to 4000 Hz) signal energy (214), and signal periodicity (208) on successive frames of signal samples. Signal periodicity is determined by estimating the pitch period (206) of the signal, determining a gain value of the signal over the pitch period as a function of the estimated pitch period, and estimating a periodicity of the signal over the pitch period as a function of the estimated pitch period and the gain value. Voice is detected (230-232) in a segment if either (a) the difference between the average high-frequency versus low-frequency signal energy ratio and the present segment's high-frequency versus low-frequency energy ratio either exceeds (310) a high threshold value or is exceeded (312) by a low threshold value, or (b) the average periodicity of the signal is lower (306) than a low threshold value, or (c) the difference between the average total signal energy and the present segment's total energy exceeds (304) a threshold value and the average periodicity of the signal is lower (304) than a high threshold value, or (d) the average total signal energy exceeds (412) a minimum average total signal energy by a threshold value and voice has been detected (410) in the preceding segment.